

PHASE CONTROLLED SURFACE COIL MAGNETIC RESONANCE IMAGING

Abstract

A magnetic resonance imaging assembly is provided. The assembly includes a magnet assembly defining a scanning bore along a z-direction. The assembly further includes a surface coil assembly positioned within the scanning bore. The surface coil assembly receives an imaging field. The surface coil assembly comprises a first surface coil positioned along the z-direction. The first surface coil is induced with a first coil current comprised of a first coil amplitude and a first coil phase. The surface coil assembly includes a second surface coil positioned along said z-direction. The second surface coil is induced with a second coil current comprised of a second coil amplitude and a second coil phase. The second coil phase is varied from the first coil phase to correct asymmetries within the imaging field.